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## Occurrence of the Barking Gecko *Underwoodisaurus milii* (Bory 1825) (Gekkonidae) in the Pilbara Region, Western Australia

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**Abstract.** To date, a total of five specimens of *Underwoodisaurus milii* have been collected from the Pilbara Region of Western Australia and lodged at the Western Australian Museum, along with observational records of two other individuals. These records from the Pilbara represent a significant range extension for the species, to the north and east of that currently known for Western Australia.

**Keywords:** *Underwoodisaurus milii*, Barking Gecko, Thick-tailed Gecko, Pilbara.

### Introduction

The Barking Gecko *Underwoodisaurus milii* (Bory 1825) is a species known to occupy a number of habitats, including woodlands, shrublands, rock outcrops (Storr *et al.* 1990; Wilson & Swan 2003) and under rubbish (Bush *et al.* 1995), emerging to forage at night (Cogger 2000). Currently the accepted range of this species extends across a large part of the southern half of Australia, from Rockhampton, Queensland to Shark Bay, Western Australia (Storr *et al.* 1990; Wilson & Swan 2003).

### Methods

Incidental captures of *U. milii* were made during two separate opportunistic vertebrate fauna surveys in the Pilbara Region of Western Australia. Surveys were conducted by *ecologia* Environment Pty Ltd at West Angelas mining lease and at Packsaddle Range. Specimens collected were lodged with the Western Australian Museum (WAM). The individuals captured from Packsaddle Range were located whilst head-torching. Locations of all specimens of *U. milii* lodged with the WAM, as well as some observational records are shown in Figure 1.

### Results

A single specimen of *U. milii* was collected on the 14<sup>th</sup> of June 1997 at West Angelas (WAM R129895). This

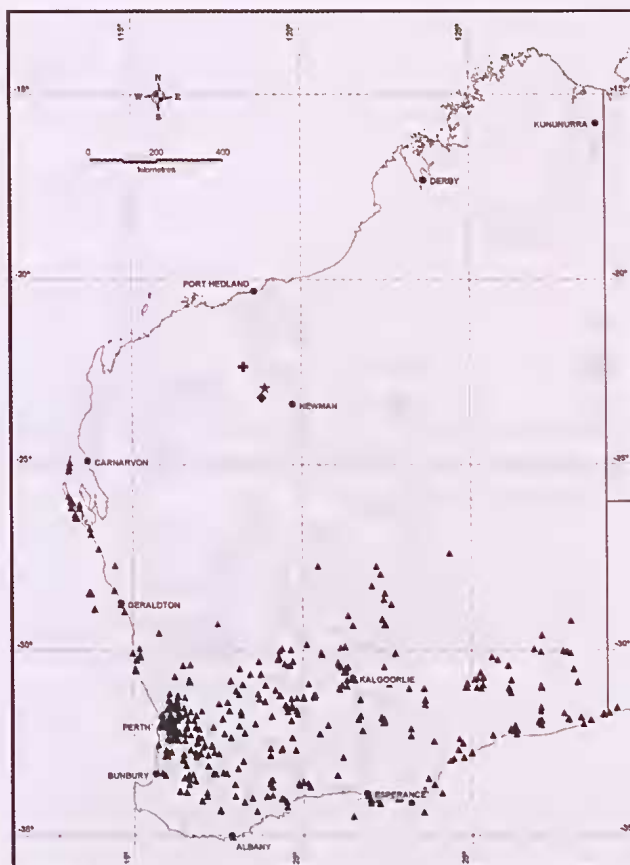


Figure 1. Map showing locations for all specimens of *U. milii* lodged with the WAM, along with locations of some observational records. ▲ denotes specimens lodged with the WAM. + denotes Michael Kearney's record. ★ denotes *ecologia* Environment records from Packsaddle Range. ◆ denotes *ecologia* Environment record from West Angelas.

individual was captured in a rocky gully with *Triodia* spp. hummocks and fallen boulders at the base and on the slopes (*ecologia* Environmental Consultants 1998).

A further four specimens of *U. milii* (Plate 1) were collected from Packsaddle Range on the night of the 7<sup>th</sup> of May 2004 (WAM R157513, R157520, R157522 and R157525). Three were captured on and around a graded track running through a major gully, with piles of broken



Plate 1. *Underwoodisaurus milii* at Packsaddle Range, Western Australia. The habitat on which this species was recorded can be seen in the photograph. Photograph: M. H. M. Menz.

rock pieces along the sides. The first individual was found away from the road, on a slope under a slab of rock and the other three were found crossing the track. Another individual was captured from the same location that night, but was released.

Another individual of *U. milii* was observed near Handrail Pool, Karijini National Park in May 2005 (M. Kearney Personal Communication).

## Discussion

The individuals collected from Packsaddle range appear to be more gracile in morphology than individuals from the south-west. The overall colouration also appears to differ slightly, though this may be due to individual variation.

These records of *U. milii* in the Pilbara Region of Western Australia represent a significant extension to the known range of this species (Figure 1). Previously known to occur only as far as slightly north of Shark Bay (Storr *et al.* 1990; Wilson & Swan 2003), these individuals extend the range further north and east of the known distribution in Western Australia. It is not yet known whether this is a continuous extension to the range of this species, or whether this represents a disjunct population. Strong & Gillam (1983) recorded the first specimen of *U. milii* for the Northern Territory from the stomach of a feral cat and Cogger (2000) mentions a population in central Australia, which is also shown on the distribution map in Wilson & Swan (2003). Though it is difficult to infer the possible wider occurrence of this species in the arid zone, these records from the Pilbara along with those from central Australia and the record from the Northern Territory may indicate that the species is colonising the arid zone, or more likely, surviving in relict populations. Potentially isolated populations such

as this need to be considered in terms of their conservation significance, with regard being given to the degree of structuring of genetic divergence. Questions such as this need to be quantified with the use of targeted molecular studies. The results from Mitochondrial DNA analysis on tissue from one of the individuals from Packsaddle Range indicates that it is not a separate species from specimens examined from Perth, the Goldfields or the Shark Bay region (S. Donnellan Personal Communication).

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